

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,626	05/02/2005	Norio Nihei	Q84237	4090
23373 SUGHRUE MI	7590 06/13/200 ON, PLLC	EXAMINER		
2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			MACK, CHANELLE N	
			ART UNIT	PAPER NUMBER
			2609	
			MAIL DATE	DELIVERY MODE
			06/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.	Applicant(s)			
Office Action Summary						
		10/511,626	NIHEI ET AL.			
		Examiner	Art Unit			
		Chanelle N. Mack	2609			
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
WHICHEVE - Extensions of after SIX (6) If NO period f - Failure to rep Any reply rec	NED STATUTORY PERIOD FOR REPLY ER IS LONGER, FROM THE MAILING DATE of time may be available under the provisions of 37 CFR 1.13 MONTHS from the mailing date of this communication. From the mailing date of this communication, or reply is specified above, the maximum statutory period with the set or extended period for reply will, by statute, eived by the Office later than three months after the mailing them adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION TO SHAPE OF THIS COMMUNICATION TO	ON. timely filed om the mailing date of this communication. NED (35 U.S.C. § 133).			
Status			•			
1)⊠ Resp	onsive to communication(s) filed on 02 M	ay 2005.				
	This action is FINAL . 2b)⊠ This action is non-final.					
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.						
Disposition of	Claims					
4)⊠ Clain	n(s) <u>1-34</u> is/are pending in the application.					
	4a) Of the above claim(s) is/are withdrawn from consideration.					
5)∐ Clain	n(s) is/are allowed.					
•	n(s) is/are rejected.					
	n(s) is/are objected to.					
8)⊠ Clain	n(s) <u>1-34</u> are subject to restriction and/or	election requirement.				
Application Papers						
	pecification is objected to by the Examine	er.				
	Irawing(s) filed on <u>18 October 2004</u> is/are		ted to by the Examiner.			
	cant may not request that any objection to the					
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under	35 U.S.C. § 119	•				
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a)⊠ All b)⊡ Some * c)⊡ None of: 1.⊠ Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No						
3.☐ Copies of the certified copies of the priority documents have been received in this National Stage						
application from the International Bureau (PCT Rule 17.2(a)).						
* See the attached detailed Office action for a list of the certified copies not received.						
Attachment(s)						
1) Notice of R	eferences Cited (PTO-892)	4) Interview Summ				
	raftsperson's Patent Drawing Review (PTO-948) Disclosure Statement(s) (PTO/SB/08)	Paper No(s)/Ma 5) Notice of Inform				
)/Mail Date	6) Other:				

Art Unit: 2609

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372. 1.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-5 and 10-13, drawn to an image display, device, which has microconcave portions and/or micro-convex portions provided to a part of an overall surface of the electrode.

Group II, claim(s) 6-9, drawn to an image display device, which has micro-cutout holes provided to a part of or an overall of the surface of the electrode.

Group III, claim(s) 14-16 and 19-24, drawn to an image display device in which the surface of the substrate to which the particles are contacted is thinly coated by an insulation film.

Group IV, claims 17-18, drawn to an image display device in which an arithmetic average roughness and concave-convex average distance of a surface substrate to which the particle are contacted is satisfied by the following formulas:

 $d(0.5)/10 \ge Ra \ge d(0.5)/200$ and

d(0.5)/10>aSm>d(0.5)/1000.

Group V, claims 25-34, drawn to an image display device, in which the image display state is read-out by detecting a fly/move current produced when the particles are flown and moved in a pixel.

The inventions listed as Groups I – V do not relate to a single general inventive 2. concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Group I requires micro-cave and/or convex portions provided to the electrode surface, Group II requires micro-cutout holes provided to the electrode surface, Group III requires a substrate

Art Unit: 2609

coated by insulation film, Group IV requires an arithmetic average roughness and concave-convex average distance of a surface substrate to which the particle are contacted to be determined by d(0.5)/10≥Ra≥d(0.5)/200 and d(0.5)/10≥aSm≥d(0.5)/1000, and Group V requires image display readout to be detected by a fly-move current.

3. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

Art Unit: 2609

remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chanelle N. Mack whose telephone number is (571) 270-2600. The examiner can normally be reached on MON - FRI 8:00 - 4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Eisen can be reached on (571) 272-7687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 2609

ALEXANDER EISEN

PRIMARY EXAMINER
TECHNOLOGY CENTER 2600